

2FW/3251

TRANSMITTAL LETTER (General - Patent Pending)	Docket No. 050689-US
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In Re Application of Ter-Avetisyan et al.

Application No. 10/538,802	Filing Date 13 June 2005	Examiner	Customer No. 30234	Group Art Unit	Confirmation No.
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Title: **Method and Apparatus for Making a Droplet Target**

COMMISSIONER FOR PATENTS:

Transmitted herewith is:

- a.) an English Translation of the International Preliminary Examination Report;
- b.) a Post Card Receipt

in the above identified application.

- ☒ No additional fee is required.
- ☐ A check in the amount of _____ is attached.
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Signature

Dated: **5 January 2006**

Karl Hormann
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Tel.: 617-491-8867

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on 5 January 2006 (Date)  Signature of Person Mailing Correspondence Karl Hormann Typed or Printed Name of Person Mailing Correspondence

CC:

PATENT COOPERATION TREATY

PCT/DE2003/004

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rule 72.2)

To:

GEMEINSAMER PATENTSERVICE
Hausvogteiplatz 5-7
10117 Berlin
ALLEMAGNE

Date of mailing (day/month/year)
21 July 2005 (21.07.2005)

Applicant's or agent's file reference
MBI2002/1201

International application No.
PCT/DE2003/004129

International filing date (day/month/year)
11 December 2003 (11.12.2003)

Applicant

FORSCHUNGSVERBUND BERLIN E.V. et al

IMPORTANT NOTIFICATION

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

AZ, CA, CH, CN, GH, KG, KP, KR, MK, MZ, RU, TM

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, BA, BB, BG, BR, BY, BZ, CO, CR, CU, CZ, DK, DM, DZ, EA, EC, EE, EP, ES, FI, GB, GD, GE, GM, HR, HU, ID, IL, IN, IS, JP, KE, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MN, MW, MX, NO, NZ, OA, OM, PH, PL, PT, RO, SC, SD, SE, SG, SK, SL, TJ, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
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Translation

PATENT COOPERATION TREATY

PCT/DE2003/004129



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference MBI2002/1201	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DE2003/004129	International filing date (day/month/year) 11 December 2003 (11.12.2003)	Priority date (day/month/year) 13 December 2002 (13.12.2002)
International Patent Classification (IPC) or national classification and IPC H05G 2/00		
Applicant FORSCHUNGSVERBUND BERLIN E.V.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>2</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 13 July 2004 (13.07.2004)	Date of completion of this report 18 March 2005 (18.03.2005)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE2003/004129

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-8 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-8 _____, filed with the letter of 30 November 2004 (30.11.2004)
- ☒ the drawings:
pages _____ 1/3-3/3 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/DE 03/04129

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

5...

The amendments submitted with the letter of 30 November 2004 introduce substantive matter which goes beyond the original disclosure in the international application as filed, thereby contravening PCT Article 34(2)(b). This concerns the following amendments: the inclusion of the feature of a "thermal" insulator in claim 1. This feature was not explicitly disclosed in the application as originally filed, nor would it possible for a person skilled in the art to derive it directly and unambiguously from the application as originally filed, for the following reasons:

the word "insulator" can indicate, by itself, both a thermal and an electric insulator.

Generally speaking, the term insulator would rather be used to designate an electric insulator, and a thermal insulator would be explicitly designated as such.

In the context of the application, both insulators come into question, since a person skilled in the art assumes that the expansion channel is electrically heated (as indicated by heater 3, represented as a wire in cross-section).

The meaning of "insulator" as an electric insulator is thus not excluded by the context.

The application as a whole does not contain any

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 03/04129

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

indication that the insulator is a thermal insulator. The applicant does not state the problem solved by the insulator, the materials that could come into question, or even a technical effect, although he could have done so.

There is therefore no reason to deviate from the normal, strict interpretation of PCT Article 34(2)(b).

The international preliminary examination is therefore based on the originally filed documents.

Boxes V and VII thus relate to the claims as originally filed.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 - 8	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 8	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 8	YES
	Claims		NO

2. Citations and explanations

The available prior art neither discloses nor suggests connecting a valve to a nozzle by a heatable expansion channel in order to generate supersaturated steam having high density even at a greater distance from the nozzle.

The subject matter of claims 1 and 5 is therefore novel and inventive (PCT Article 33(2) and 33(3)).

Claims 2-5 are dependent on claim 1 and contain additional technical features which further restrict its scope of protection.

Claims 6-8 are dependent on claim 5 and contain additional technical features which further restrict its scope of protection. The subjects of claims 2-5 and 6-8 are thus also novel and inventive (PCT Article 33(2) and 33(3)).

Box VII

Certain defects in the international application

Claim 1 is unclear (PCT Article 6).

The device feature according to which "an insulator is arranged between the electromagnetic valve and [...] the

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/DE 03/04129

heating" is unclear (PCT Article 6). The term insulator is unclear because the applicant does not specify whether it is a thermal or an electric insulator.

The device claim 1 contains the following process features: "in which high pressure is obtained by means of a non-reactive gas", "an electromagnetic valve switched in the ms range".

These features cannot restrict the scope of protection and are therefore unclear (PCT Article 6).

The feature "supersonic nozzle" (in claims 1 and 5) is unclear (PCT Article 6) and designates operating parameters rather than properties of the nozzle. Consequently, the feature "supersonic nozzle" does not restrict the scope of protection to a greater extent than the feature "nozzle".